

BOTANICAL SOCIETY OF EDINBURGH.

This Society met on Thursday, June 13th, at the Royal Botanic Gardens, Professor Graham, President, in the chair.

1. "On four genera of *Desmidiæ*," by Mr. John Ralfs, Penzance. The genera are *Cosmarium*, *Pediastrum*, *Xanthidium*, and *Scenedesmus*, and the descriptions of them, which were accompanied by illustrative drawings, will shortly appear in the 'Annals and Magazine of Natural History.'

2. "Continuation of Mr. James M'Nab's Journal of a Tour through part of the United States and the Canadas." In the previous part of this Journal, Mr. M'Nab gave a brief outline of the principal botanical and horticultural features observed in the neighbourhood of New York. The part now read embraced chiefly the appearance of the country around Albany, with an account of the most interesting plants seen during the journey thither. Among these the most remarkable were several species of *Lycopodium*, with which the peaty soils on the road-sides around Albany were covered, consisting of *L. complanatum*, *clavatum* and *dendroides*, the latter resembling at a distance young spruce firs, being similarly shaped and of a lively green colour. In damp situations in the close forests, *Adiantum pedatum* and other ferns covered large tracts, while *Pyrola elliptica* and *rotundifolia*, with *Chemophylla maculata* and *umbellata*, were in full flower along the drier parts. *Satyrium herbiola* and *Neottia tortilis* were also observed, the latter growing chiefly in pairs. The principal plants noticed in the meadows or open grounds were *Lilium philadelphicum* and *canadense*, *Mimulus ringens*, *Verbena hastata* and *urticifolia*, and *Asclepias obtusifolia* and *variegata*. Proceeding towards Troy on the banks of the Hudson, great quantities of *Kalmia angustifolia*, *Cornus florida*, *Lupinus perennis*, *Andromeda*s, *Vaccinium*s, &c. occurred. In an extensive forest, chiefly composed of small trees, and much entangled with *Smilax* or green brier, through which the party proceeded with great difficulty, *Cypripedium spectabile* covered large patches, with *Arum triphyllum*, the latter in full flower. Mr. M'Nab concluded the present part of his Journal with an account of some large trees of the hemlock spruce, *Abies canadensis*, being the first of this tree which the party had observed in natural situations; the largest specimens were about 10 feet in circumference and 80 feet in height.

This Society held its last meeting for the session on Thursday July 11th, at the Royal Botanic Garden, Professor Graham in the chair.

The Treasurer read a paper on three genera of *Desmidiæ*, by Mr. John Ralfs, Penzance, viz. *Desmidium*, *Glæoprium*, and *Schistochilum*.

Mr. James M'Nab read a portion of his Journal of a Tour in the United States and Canadas. In the last notice Mr. M'Nab gave an account of the excursion from Albany to Troy, and thence to Stillwater, with notices of the most interesting plants observed during the journey thither; the present portion is chiefly confined to obser-

vations on the botany of the same district.—July 15. In the early part of the day a severe thunder-storm, accompanied with much rain, prevented the party from going abroad, but afforded an opportunity for arranging the specimens already collected. The storm having abated towards the afternoon, they were enabled to make a short excursion along the banks of the Hudson; few species, however, rewarded their exertions, the greater portion being out of flower; of those gathered, the most attractive were *Lobelia cardinalis* and *Habenaria fimbriata*, both in great abundance, the rich spikes of scarlet flowers of the former being admirably contrasted with the delicate purple blossoms of the latter; these two species formed the bulk of the flowering plants: mixed with them, but more sparingly, *Habenaria lacera* and *Neottia cernua* occurred, with *Apocymum androsaemifolium*, the latter being the most abundant, and covered with a beautiful coleopterous insect, which appeared to be peculiar to it. On the sloping banks of the river, in thickets of shumacs, hazels, willows, &c., a gigantic species of Solomon's seal, *Polygonatum latifolium*, was observed; some of the specimens measured seven feet nine inches in height, with roots four inches in circumference. In several places the ground was so matted over with the stems of the poison oak, *Rhus toxicodendron*, that the hands of the party were much blistered in endeavouring to extricate themselves.—July 16. Having procured a canoe, the party proceeded about two miles down the river: during this short voyage they observed vast quantities of the shells of the freshwater mussel, covering the little sandy hills by the river's edge which had been collected by the musk rats, with which the banks everywhere abound. At this place the rapidity of the stream, which had hitherto prevented the growth of aquatic plants, became much diminished, and they now observed large portions of its surface covered with *Nuphar Kalmiana* and *advena*, together with *Nymphaea rosea*, all beautifully in flower, and growing from a depth of eight feet. Overhanging the banks on both sides of the river, *Salix petiolaris* was in fine condition, its broad lunate stipules adding much to the beauty and singularity of its appearance; here also some fine specimens of the Virginian poplar, *Populus monilifera*, were seen; the largest stems measured were nine foot in circumference and about seventy foot in height.

Leaving Stillwater the party proceeded by canal to Whitehall; on the banks of the canal, and extending over the neglected fields, such quantities of the great mullein, *Verbascum Thapsus*, were observed, as to give the idea of its having been sown for a crop; the fact of its growing on the soil which had recently been thrown out of the canal as well as on the sloping banks, convinced them that the seed must have lain buried in the earth, probably for a long series of years, and that therefore it is not likely, as has been generally supposed, that this plant has been introduced by the emigrants, but rather that it is indigenous to the country. The common St. John's wort, *Hypericum perforatum*, was also extremely abundant in this district, although sparingly seen before, and is described by Mr. M'Nab as one of the greatest evils the American farmer has to contend with,

being supposed to be highly injurious to cattle, especially horses, causing blindness, which prevailed in many parts to a fearful extent.

On reaching Whitehall, situated at the southern extremity of Lake Champlain, two remarkable species of ferns were observed for the first time; namely *Asplenium rhizophyllum* and *Aspidium bulbiferum*, the former growing on the surfaces of moist rocks, where it throws out its fronds which take root at their extremities; while the latter bears a number of small bulbs along the rachis, which, when mature, fall off and vegetate in the crevices of the rocks. Many other interesting plants were observed, but few of them in flower, with the exception of *Rubus spectabilis*, *Desmodium acuminatum* and *cunadense*, and a few others.

Mr. M'Nab afterwards exhibited several specimens of gooseberries and currants which had been kept for the last two years in glasses containing water only, in which they had now matured their fruit for the second time; and it was remarkable that the gooseberries (*yellow amber*) and the red and white currants were as highly flavoured as the same sorts under ordinary treatment.

Mr. Trevelyan exhibited specimens of some remarkable varieties of *Taraxacum officinale* found on the sandy beach near Arbroath, and a curious variety of *Aspidium*, *felix femina*, from Braemar, having the frond branched at the extremity; the specimens were afterwards presented to the Society.

MISCELLANEOUS.

Correction by Dr. Dickie on Art. XXI. p. 168 of this Number.

CUTLERIA MULTIFIDA.

IN justice to so accurate an observer as Dr. Greville, I beg to acknowledge that since my note and figures on the fructification of this genus were made out, I have ascertained that they have reference to its condition when immature.—G. D.

COLOURING OF THE WATERS OF THE RED SEA.

A memoir on the colour of the waters of the Red Sea, by M. Montagne, was read at the Académie des Sciences, July 15th. The conclusions which the author draws from all the facts contained in his memoir, whether already known or entirely new and still unpublished, are the following:—

1. That the name of Erythrean Sea, given first to the sea of Oman and to the Arabian Gulf by Herodotus, afterwards by the later Greek authors to all the seas which bathe the coasts of Arabia, probably owes its origin to the very remarkable phænomenon of the colouring of its waters.

2. That this phænomenon, observed for the first time in 1823 by M. Ehrenberg in the bay of Tor only, then again seen twenty years later by M. Dupont, but in truly gigantic dimensions, is owing to the presence of a microscopic Alga *sui generis*, floating at the surface